Amendment to the Drawing

Replacement formal drawing sheets are submitted consisting of FIGs. 1, 2, 3, 4A, 4B, 4C, 5, 6A, and 6B on 9 sheets.

Annotated drawing sheets are submitted for FIGs. 1, 2, 3, 4A, 4B, 4C, 5, 6A, and 6B on 9 sheets. An additional annotated drawing sheet is submitted for FIG. 5 on one sheet.

REMARKS

Claims 13, 15, 18, 20 through 22, and 24 through 64 are pending. Pending independent claims include claims 13, 18, 22, and 53. Each of claims 13, 15, 18, and 20 through 32 stand rejected under 35 U.S.C. §103 as obvious in view of a combination of the teachings of *Kenny*, U.S. Patent 5,801,617 to *Langnor*, U.S. Patent 5,457,579 to *Rothschild*, U.S. Patent 6,880,466 to *Carman*, and U.S. Patent 5,067,495 to *Brehm*. Claim 18 is amended. New claims 53 through 64 are submitted. No new matter is submitted.

Drawing

The drawing sheets submitted November 8, 2005 did not include proper labels. Properly labeled drawing sheets are submitted herewith. In addition, an error is corrected here for FIG. 5. The remarks filed November 8, 2005 describe all annotations in the first group of 9 annotated sheets. On the additional annotated sheet 7/9 FIG. 5 (Prior Art), an incorrect double direction arrow is here replaced with a single direction arrow from switch 88 to the left-most wire of pair 92. Support for this correction is found generally in the prior art and in paragraph [0051] of the marked up version of the substitute specification. No new matter is submitted.

Information Disclosure

The Examiner's attention is drawn to *Ragner* that in part teaches a signal having two types of pulses, one type for stun effect up to 500 per second and another type for defibrillating effect at 10-second intervals. The only difference between these types is the spacing in time between pulses. The signal is described with reference to FIG. 4 and components of the circuit of FIG. 5. Apparently, all pulses are of the same energy magnitude -- a maximum of 0.5 joules per pulse. Note that the typical defibrillation scenario in the state of the art 1995 was one rescue pulse about 8000 microseconds long at an energy of over 100 joules. Ragner's 0.5 joule pulses, each a few tens of microseconds long, repeating at 10-second intervals are quite inoperative for defibrillation.

> At the high end, 0.5 joule pulses represent very nearly the maximum power a tiny eraser-head sized battery can be expected to produce even for a few seconds. One-half joule pulses firing at thirty pulses per second is also well above the non-lethal range of

> electric shock if the heart is placed in the circuit. At these high power levels a defibrillating pulse 114 (see FIG. 4) would be used ... (col. 9 lines 5-8).
>
> FIG. 4 shows one possible current output for the stun bullet. Stun pulses 112 are each only a few tens of microseconds in duration with as many as 500 pulses per second (approx. 12 pulses per second shown in FIG. 4). The pulses are shown switching polarity every half second. Defibrillating pulses 114 and 116 are applied several seconds after the initial stun pulses to stop heart defibrillation if it has occurred. (col. 12 lines 13-33).

Note that using an approximation for rectangular pulses as discussed in the response filed November 8, 2005 Equation A, a current into a load of about 250 ohms, having 30 pulses per second, and 0.5 joules per pulse, corresponds to an RMS current of about 245 mA. *Ragner* does not teach or suggest such a waveform without "defibrillating pulses" at a different pulse repetition rate.

Amended independent claim 18 and new independent claim 53 are patentable over *Ragner* alone and in combination with any other art of record, *inter alia*, because claim 18 and claim 53 recite "the current consists essentially of a plurality of substantially equally spaced apart pulses". This feature is not taught nor suggested in *Ragner* in combination with the other limitations of those claims.

Rejection Under §103

The Examiner has not presented a *prima facie* case of obviousness as discussed in the response filed by Applicant November 8, 2005. Nonetheless, Applicant seeks an early allowance of the pending claims. To that end, Applicant submits objective evidence of nonobviousness. By submitting objective evidence of nonobviousness, Applicant does not concede that a *prima facie* case of obviousness has been made by the Examiner. Consideration of objective evidence of nonobviousness includes consideration of what are sometimes called "secondary considerations". *In re Sernaker* 217 USPQ 1 (Fed. Cir. 1983). *In re Rouffet* 47 USPQ2d 1453, 1456 (Fed. Cir. 1998)("The secondary considerations are ... essential components of the obviousness determination ... This objective evidence of nonobviousness includes ... unexpected results created by the claimed invention). "It is jurisprudentially inappropriate to disregard any

relevant evidence on any issue in any case, patent cases included. This evidence rising out of the so-called 'secondary considerations' must always when present be considered en route to a determination of obviousness ... Indeed, evidence of secondary considerations may often be the most probative and cogent evidence in the record. It may often establish that an invention appearing to have been obvious in light of the prior art was not. It is to be considered as part of all the evidence, not just when the decision maker remains in doubt after reviewing the art." *Stratoflex, Inc. v. Aeroquip Corp.* 218 USPQ 871 (Fed. Cir. 1983). These considerations are not "secondary" in importance, though some may be "secondary" in other respects such as later in time. *Truswal Systems Corp. v. Hydro-Air Engineering Inc.* 2 USPQ2d 1034, 1038 (Fed. Cir. 1987).

The pending claims are not made obvious by any of the prior art of record in light of the following objective evidence of nonobviousness. First, the combinations of ranges claimed by Applicant are *critical* to achieving a substantially improved result. Criticality is discussed in the specification as originally filed and in the Declaration of Patrick Smith, filed herewith and discussed below. This declaration was inadvertently omitted from the response filed November 8, 2005. Second, commercial success of the claimed invention is apparent from the declaration of Daniel Behrendt, also filed herewith and discussed below.

Substantially Improved Result

As discussed in the Declaration of Patrick Smith, "halting locomotion" as a result of the claimed invention is superior to "partial incapacitation" of the closest prior art. A combination of more than one variable was found to accomplish an "unexpectedly good result". This result is "unexpected" in the art at least because the mechanism of interfering with locomotion in the prior art was not understood. Understanding was masked by confused terminology such as "incapacitation" and "tetanous" where halting of locomotion as discovered by Smith was not being accomplished. Further, it was not appreciated that electrical stimulation using pulsed signals could accomplish halting of locomotion without significant risk of cardiac fibrillation. While the effect on small muscle groups such as hands or feet led to a definition of a let-go current for high energy waveforms such as household alternating current, no waveform defined halting locomotion. The "particularly good results" were achieved because the waveform for halting locomotion could be produced by a small battery powered unit using pulsed current, as

opposed to high energy household alternating current. The critical combination of ranges of electrical parameters that describe the discovered waveform affect large muscle groups such as legs and arms and accomplish halting of locomotion even in the absence of pain.

Accomplishing halting of locomotion in the absence of pain is a "different result" from the results produced in the prior art. Nowhere is demonstrated, taught, or suggested halting of locomotion specifically in the absence of pain.

Applicant asserts that *assuming arguendo* that the claimed ranges individually may be found in the prior art for various purposes, the combination of the ranges claimed here and used for the recited purpose is not obvious. The tests variously referred to above and by the courts as "synergistic result", "unusual result", "surprising result", "unexpected result", and "different result" are simply different modes of expression that the Courts have used to describe the same basic requirement that combination claims be tested as a whole (i.e., that the combination be nonobvious though all elements are known individually) and tested with an appropriate amount of skepticism. *Republic Indus., Inc. v. Schlage Lock, Co.,* 200 USPQ 769 (7th Cir. 1979). *Ryko Mfg. Co. v. Nu-Star Inc.,* 18 USPQ 2d 1047, 1049 (D. Minn. 1990), *aff'd*, 21 USPQ 2d 1053 (Fed. Cir. 1991) ("the law also suggests a certain caution in the assessment of combination inventions, to determine whether it is really an 'invention' at all or merely an improper monopoly."). The pending claims having various critical combinations of ranges are not obvious, *inter alia*, because, a person of ordinary skill in the art would expect using higher energy pulses would produce greater pain. See generally *Ragner* who proposes a scale for the "feel" of the stimulus that seems proportional to stimulus energy. There is no teaching of the effect discovered by Applicant for pulse widths in the claimed range; nor pulse widths combined with energy or current as claimed. One court explains, "the *prima facie* obviousness of the combination would flow from the expectation of obtaining additive results". *L'Esperance v. Nishimoto*, 18 USPQ 2d 1534, 1540 (BPA&I 1991). Here, results are not additive. Here, merely increasing energy per pulse (one variable) provides no suggestion whatsoever that would lead to the discovery of a combination of particular ranges recited as energy and pulse width (claims 13 and 22); or recited as pulse width and RMS current (claim 18). In other words, merely increasing *energy* (or pain) does not suggest using *pulse widths* in the range recited in combination with the increased energy per pulse in the range recited to accomplish halting locomotion.

Commercial Success

The commercial success of the TASER model M26 is evident from the Declaration of Daniel Behrendt. A nexus between the commercial success of the model M26 and the claimed invention is apparent from the Declarations of Magne Nerheim and Patrick Smith. The Declaration of Magne Nerheim provides evidence that the model M26 corresponds to the claimed invention and that the commercial success of the M26 is commensurate in scope with the claims. The pending independent claims each recite a combination of ranges. The M26 product that was sold, operates around one point in each of these ranges, due to manufacturing tolerances. This objective evidence of commercial success is persuasive while not coextensive with all combinations of the ranges claimed because, *inter alia*, the commercial success was achieved at a typical point within those ranges and operation throughout the claimed ranges approximates operation at the particular points involved in the successful commercial product. MPEP 716.03(a) II. quoting *In re Hollingsworth,* 117 USPQ 182, 184 (CCPA 1958).

Conclusion

Reconsideration is respectfully requested. Applicant believes the case is in condition for allowance and respectfully requests withdrawal of the rejections and allowance of the pending claims.

The Examiner is invited to telephone the undersigned at the telephone number listed below if it would in any way advance prosecution of this case.

Respectfully submitted,

Date: January 9, 2006

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Reg. No. 34,980

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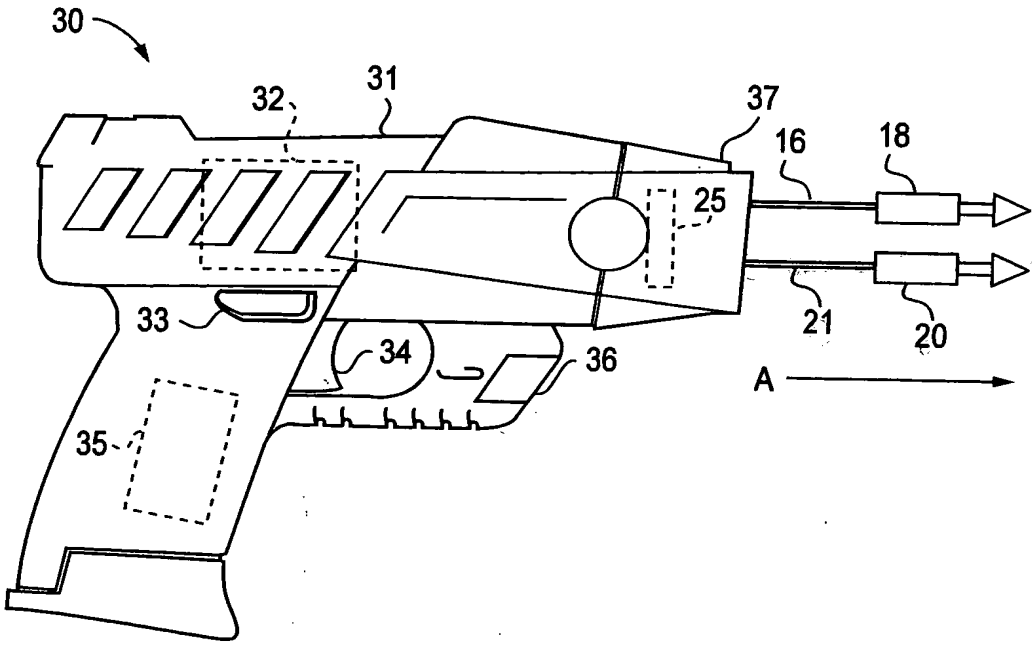


FIG. 1

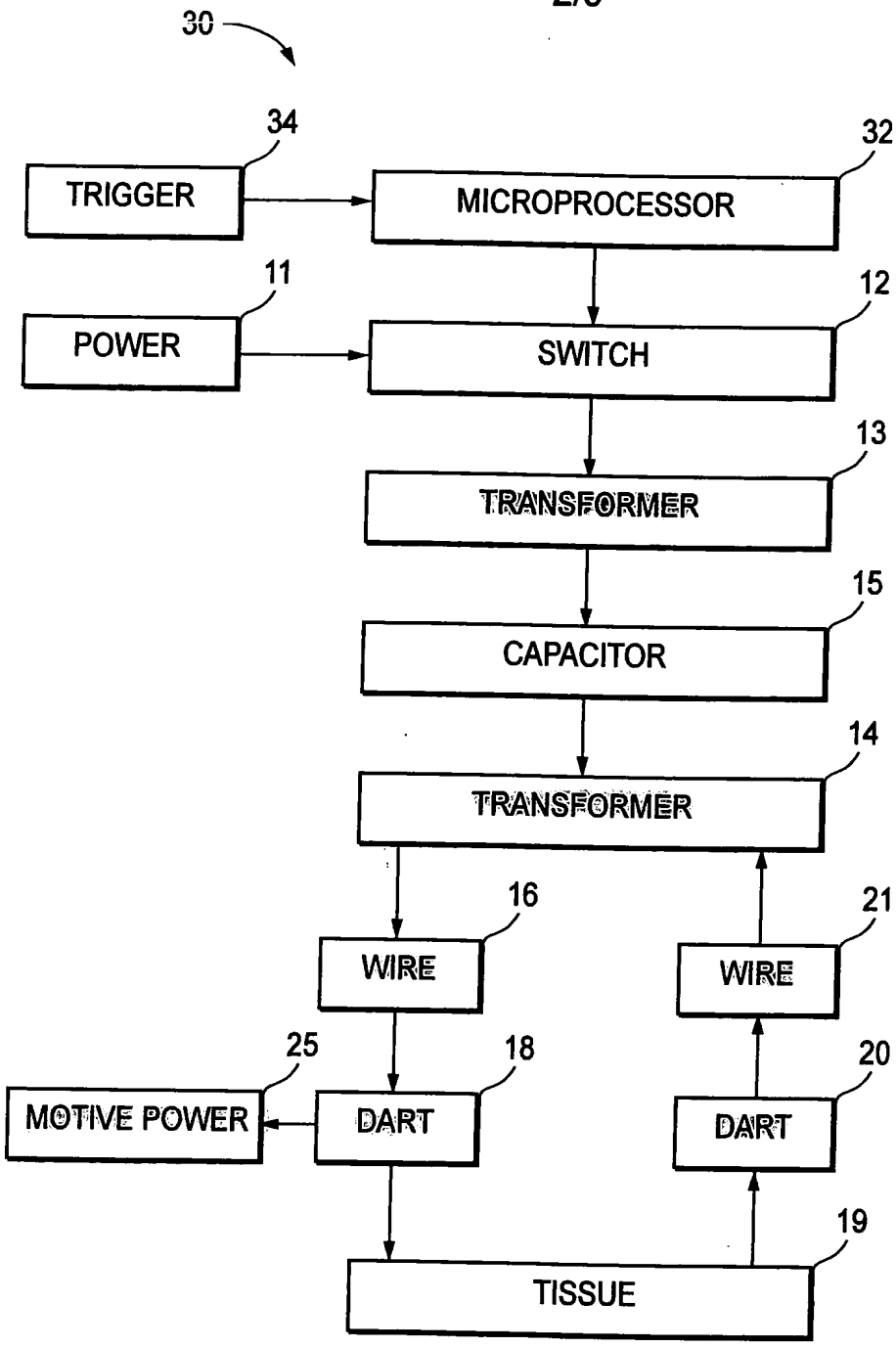

30
34
TRIGGER
32
MICROPROCESSOR
11
POWER
12
SWITCH
13
TRANSFORMER
15
CAPACITOR
14
TRANSFORMER
16
WIRE
21
WIRE
25
MOTIVE POWER
18
DART
20
DART
19
TISSUE

FIG. 2

BRAND	PULSE AMPLITUDE (mA RMS)	PULSE WIDTH (μSEC)
JAYCOR SS	42.0	1.00
ZFORCE I	29.0	1.60
Z FORCE III	31.9	1.69
ZFORCE IV	25.3	1.81
TP65kV	26.8	2.07
TP120kV	25.7	3.03
MYOTRON	64.7	3.20
Om120kV	38.2	6.17
Om150kV	29.6	7.13
Om SB	29.8	7.52
INVENTION	162.48	13.00

FIG. 3

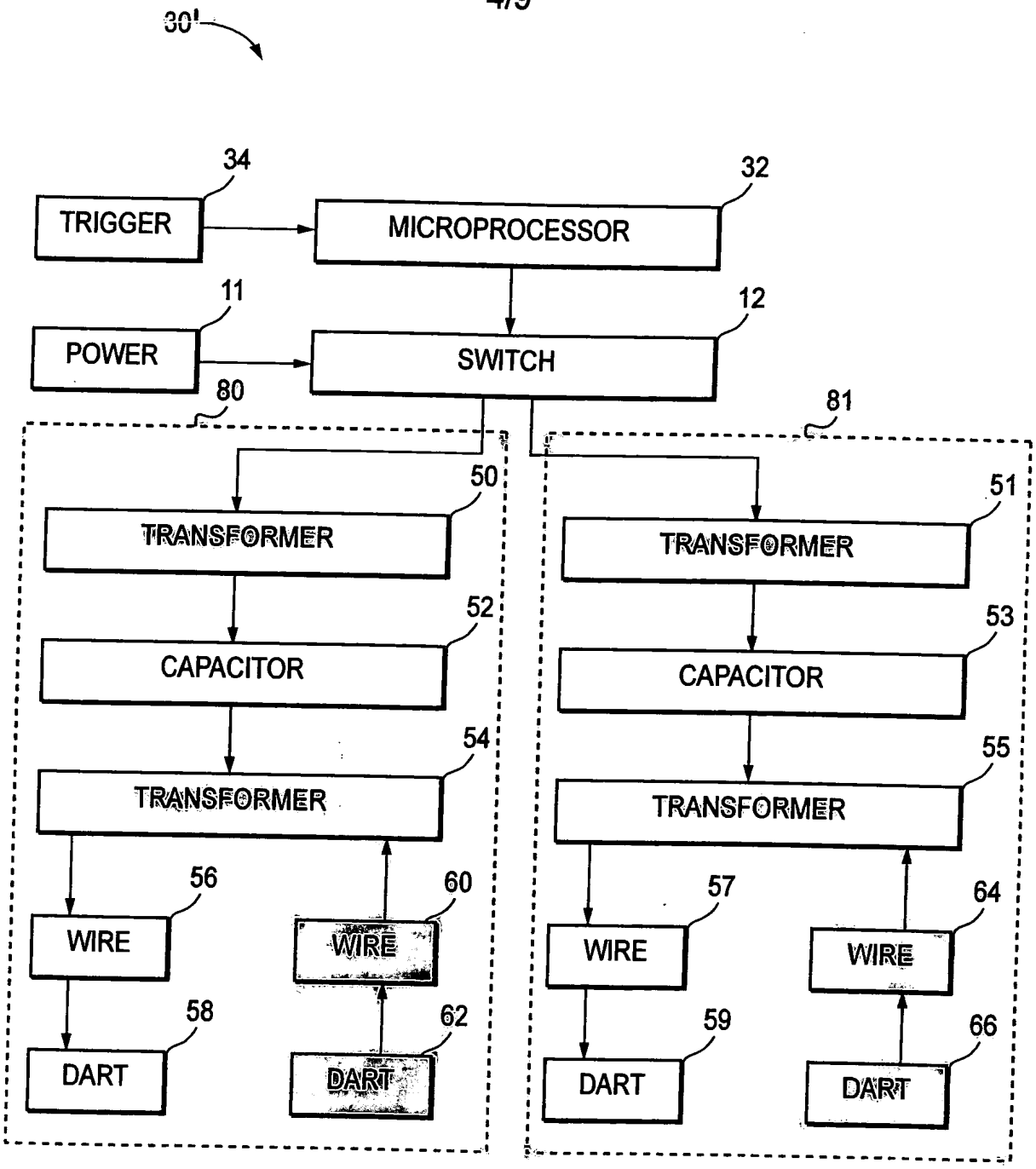
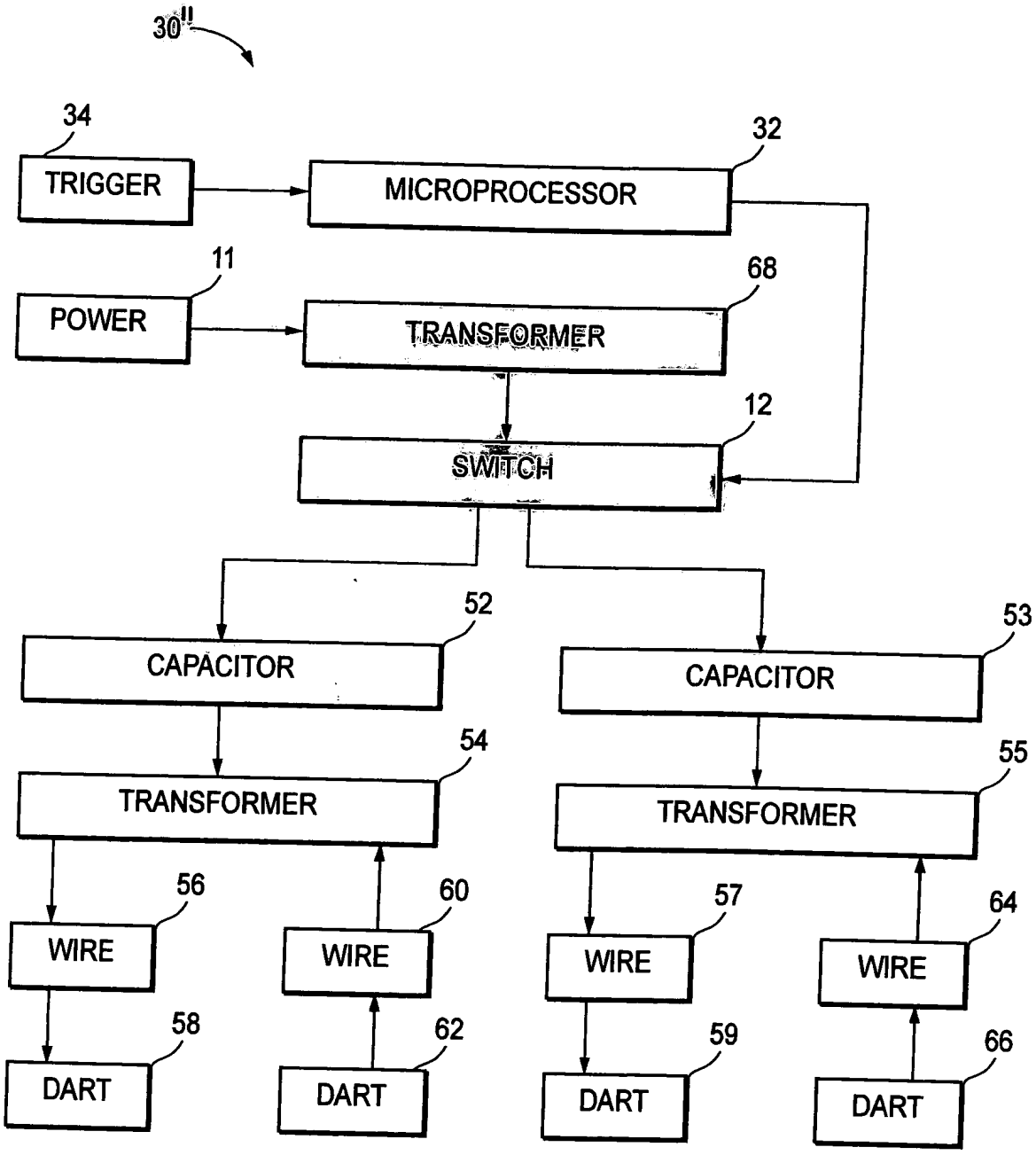

30'
34
TRIGGER
32
MICROPROCESSOR
11
POWER
12
SWITCH
80
81
50
TRANSFORMER
51
TRANSFORMER
52
CAPACITOR
53
CAPACITOR
54
TRANSFORMER
55
TRANSFORMER
56
WIRE
60
WIRE
57
WIRE
64
WIRE
58
DART
62
DART
59
DART
66
DART

FIG. 4A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34
TRIGGER
32
MICROPROCESSOR
11
POWER
68
TRANSFORMER
12
SWITCH
52
CAPACITOR
53
CAPACITOR
54
TRANSFORMER
55
TRANSFORMER
56
WIRE
60
WIRE
57
WIRE
64
WIRE
58
DART
62
DART
59
DART
66
DART

FIG. 4B

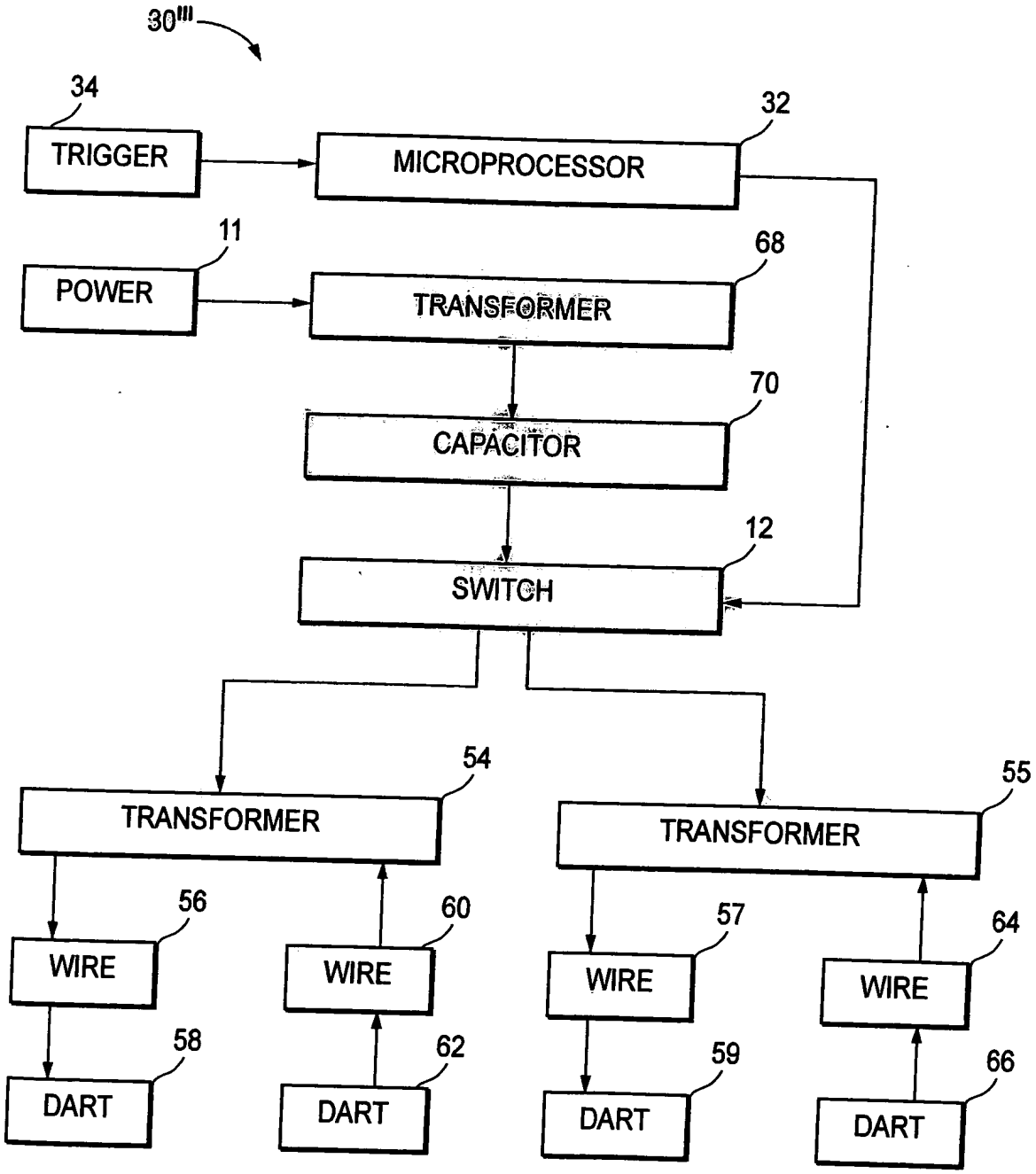
30III
34
TRIGGER
32
MICROPROCESSOR
11
POWER
68
TRANSFORMER
70
CAPACITOR
12
SWITCH
54
TRANSFORMER
55
TRANSFORMER
56
WIRE
60
WIRE
57
WIRE
64
WIRE
58
DART
62
DART
59
DART
66
DART

FIG. 4C

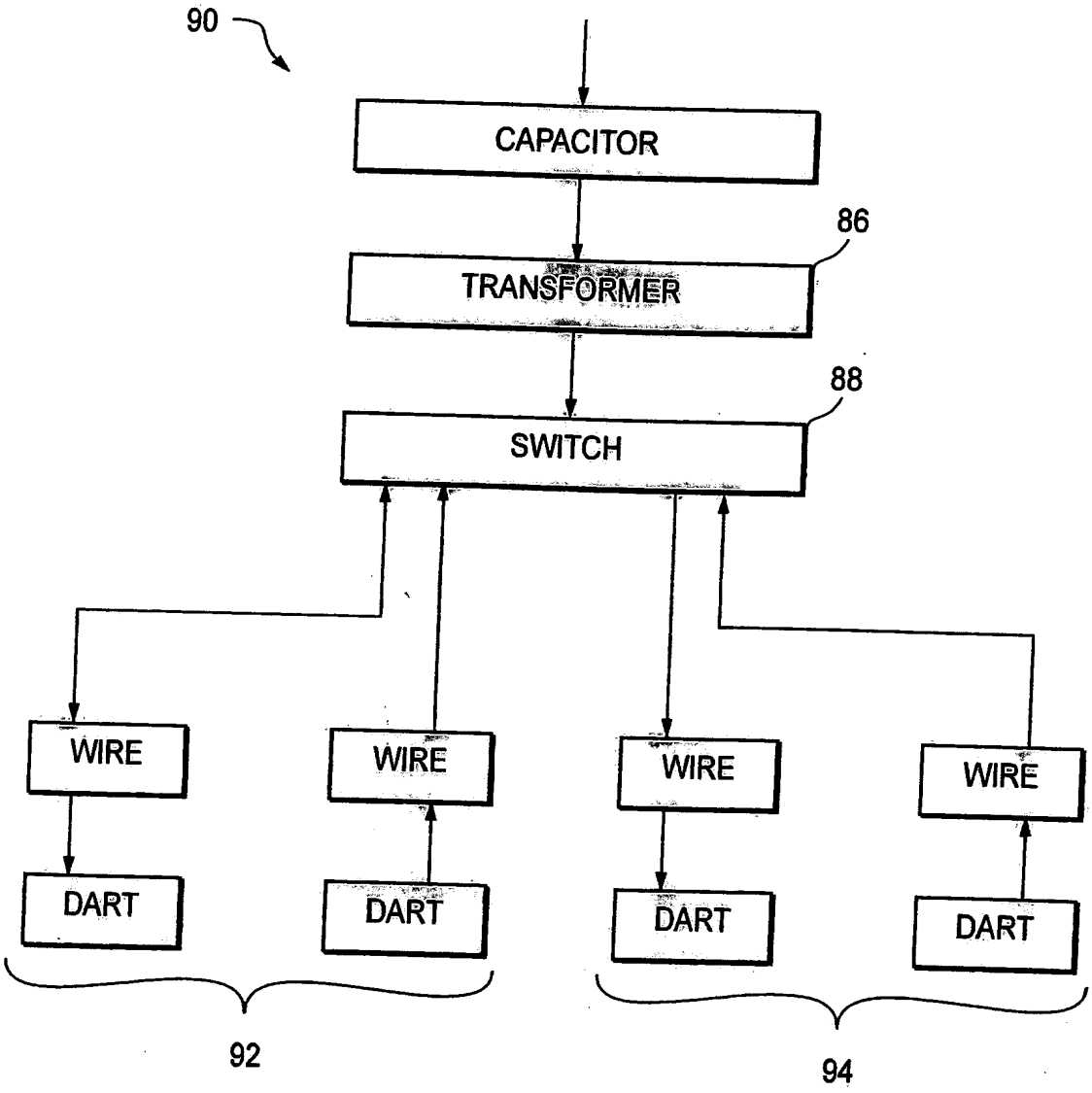

FIG. 5
(PRIOR ART)

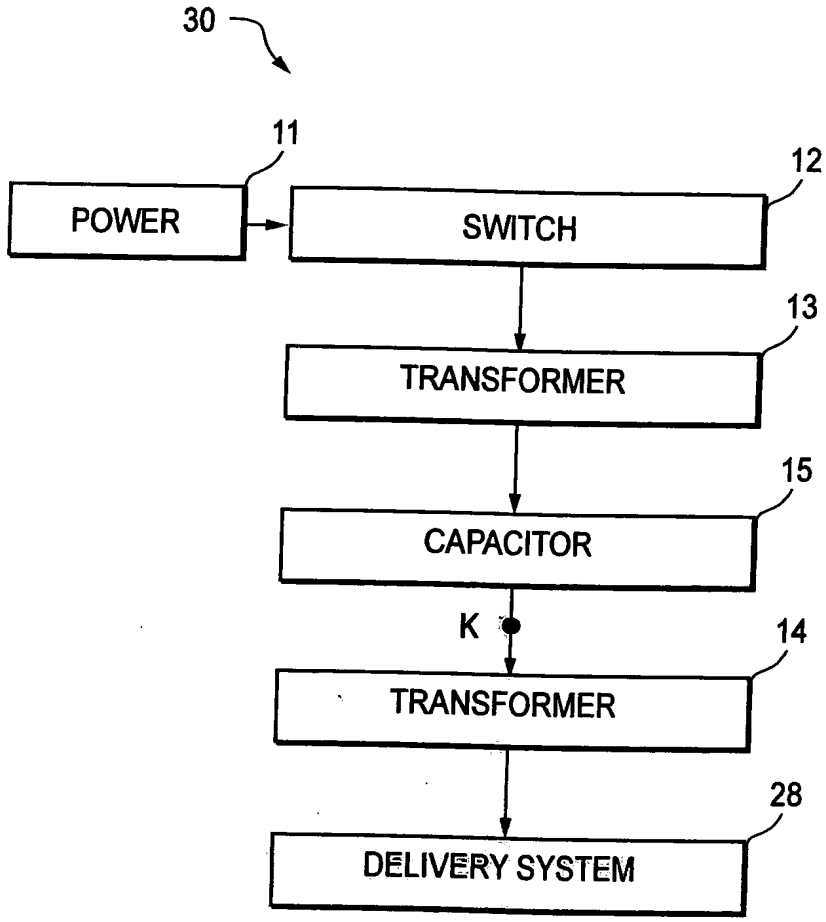
30
11
12
POWER
SWITCH
13
TRANSFORMER
15
CAPACITOR
K
14
TRANSFORMER
28
DELIVERY SYSTEM

FIG. 6A

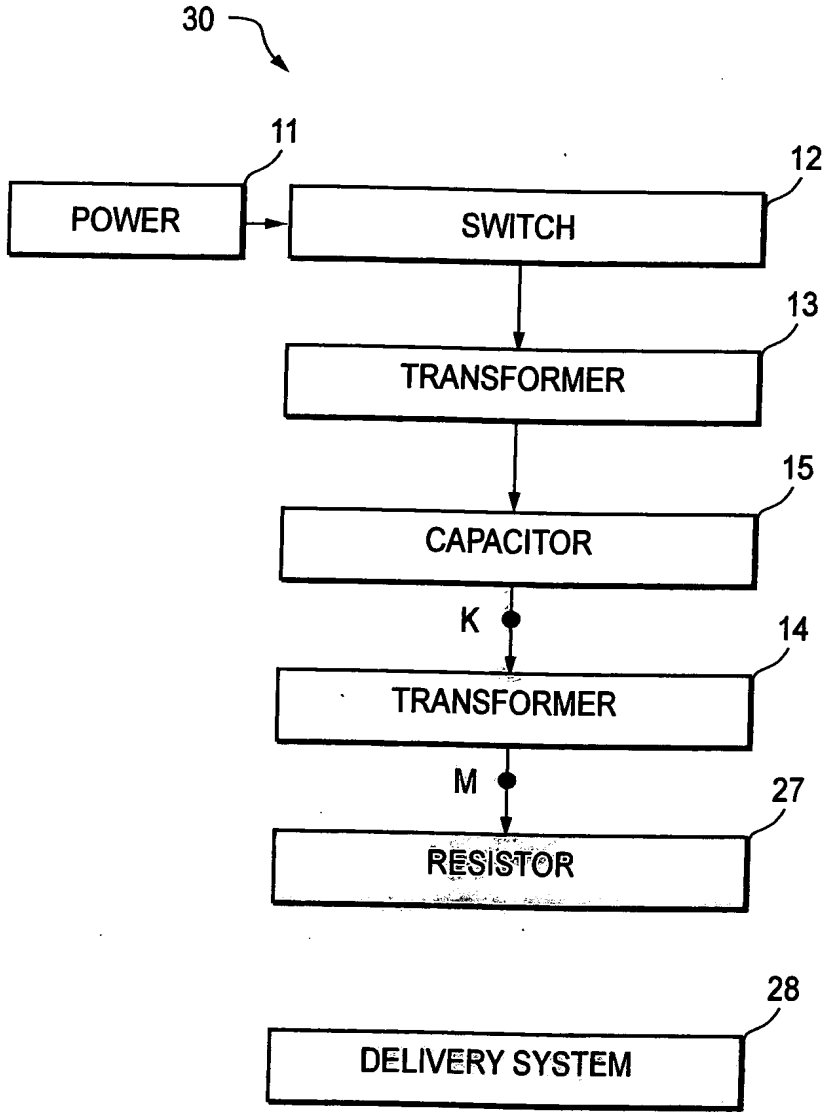
30
11
POWER
12
SWITCH
13
TRANSFORMER
15
CAPACITOR
K
14
TRANSFORMER
M
27
RESISTOR
28
DELIVERY SYSTEM

FIG. 6B

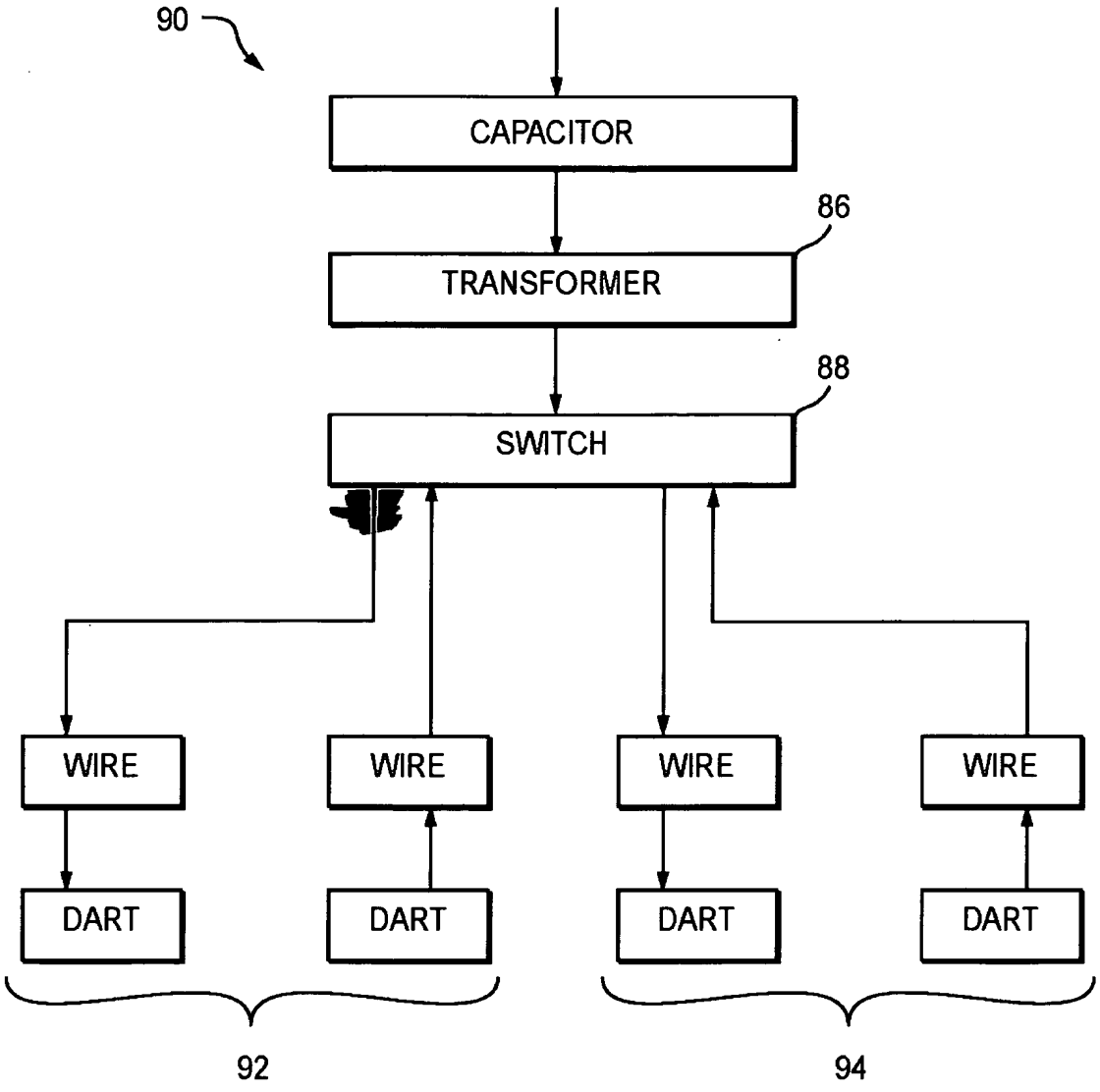

FIG. 5
(PRIOR ART)